

DZHASUA, Sh.A.

CHURAYAN, A.L.; NAPETVARIDZE, Sh.G.; DZHASUA, Sh.A.

Effect of earthquakes on buildings. Trudy Inst. stroi. dela
AN Gruz. SSR 3:113-149 '51. (MLRA 9:10)

(Earthquakes and building)

DZHABUA, Sh.A.; NAPETVARIDZE, Sh.G.; CHURAYAN, A.L.

[Album of details of earthquake-proof construction elements for apartment houses and public buildings] Al'bum detaley seismostoikikh konstruktsey dlia zhilykh i grazhdanskikh zdaniy. Razrabotali: Sh.A. Dzhabua, Sh.G.Napetvaridze, A.L.Churayan. Tbilisi, 1952. 33 p.
(MLRA 9:9)

1. Akademiya nauk Gruzinskoy SSR, Tiflis, Institut stroitel'nogo dela.

(Earthquakes and building)

DZHABUA SH.
CHURAYAN, A.; DZHABUA, Sh.; ZAVRIYEV, K.S., professor, redaktor; DZHAPARIDZE, N.A., tekhnicheskiy redaktor.

[Some characteristics of axisymmetric buildings] Nekotorye osobennosti tsentricheskikh zdaniy. Izd. 2-e. Tbilisi, Izd-vo Akademii nauk Gruzinskoi SSR, 1954. 58 p. [Microfilm] (MLBA 7:11)

1. Deyatvitel'nyy chlen Akademii nauk Gruzinskoy SSR (for Zavriyev)
(Structures, Theory of)

CHURAYAN, A.L.; DZHABUA, Sh.A.; NAPETVARIDZE, Sh.G.; LOMADZE, D.R.

Basic principles of designing earthquake-resistant buildings of
rigid type. Trudy Inst.stroi.dela AN Gruz.SSR 5:101-111 '55.

(MLRA 9:8)

(Earthquakes and building)

CHURAYAN, A.L.; ~~DZHABUA, Sh.~~

Foundations of earthquake resistant buildings. Trudy Inst.stroi.dela
AN Gruz.SSR 5:113-122 '55. (MLBA 9:8)
(Foundations) (Earthquakes and building)

DZHABUA, Sh.A.

CHURAYAN, A.L., kandidat tekhnicheskikh nauk; DZHABUA, Sh.A.

Precast reinforced concrete floors for antiseismic construction.
Bet. 1 shel.-bet. no.8:282-287 H '55. (MLRA 9:1)

(Floors, Concrete) (Earthquakes and building)

DZHABUA, Sh.a., inzhener; CHURAYAN, A.L., inzhener

Precast reinforced concrete antiseismic chords. Stroi. prom.
33 no.7:29-32 J1 '55. (MIRA 8:9)
(Earthquakes and building)

CHURAYAN, A.L., kandidat tekhnicheskikh nauk; DZHABUA, Sh.A., inzhener.

Large-sized block foundations and walls for buildings in earthquake
areas. Stroi.prom. 33 no.12:26-30 D '55. (MLRA 9:3)
(Building blocks) (Earthquakes and building)

DZHABUA, SH. A.

DZHABUA, SH. A. "Some Problems of Using Prefabricated Reinforced-Concrete Structures in Earthquake Regions." Published by the Acad Sci Georgian SSR. GUUZ. Min Railways. Tbilisi Inst of Railroad Transport Engineers imeni V. I. Lenin. Tbilisi, 1956. Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 19, 1956.

DZHABUA Sh.A.
BYKHOVSKIY, V.A.; DZHABUA, Sh.A.; DUZINKOVICH, S.Yu.; CHURAYAN, A.L.

Now "Standards and regulations for building in seismic regions."
Stroi. prom. 35 no.12:30-33 D '57. (MIRA 11:1)
(Earthquakes and building)

DZHABUA, Sh.A.

3(10)

PHASE I BOOK EXPLOITATION

SOV/3034

Akademiya nauk SSSR. Sovet po seysmologii

Byulleten'; Krasnopolyanskoye zemletryaseniye, 1955 g., No.5 (Bulletin;
Krasnaya Polyana Earthquake, 1955, No.5) Moscow, 1958. 62 p. 1,200
copies printed.

Resp. Ed.: S.V. Medvedev, Doctor of Technical Sciences; Ed. of Publ.
House: N.V. Shebalin.

PURPOSE: This booklet is intended for scientists working in the field of
geophysics and seismology.

COVERAGE; This bulletin contains three studies of the Krasnaya Polyana
earthquake which occurred on December 21-27, 1955. The studies include
data gathered by the expedition organized by Ye.F. Savarenskiy, Chairman
of the Committee on Seismology of the Academy of Sciences, USSR, in
January-February 1956. The members of the expedition included A.Z. Kats
of the Geophysical Institute AN SSSR; A.D. Tskhakaya of the Geophysical
Institute of the Academy of Sciences of the Gruzinskaya SSR; and
Sh.A. Dzhabua, A.L. Churayan, and A.N. Safaryan of the Building Institute

Card 1/2

SOV/169-59-5-4464

Translation from: Referativnyy zhurnal, Geofizika, 1959, Nr 5, p 27 (USSR)

AUTHORS: Dzhabua, Sh.A., Kats, A.Z., Safaryan, A.N., Tskhakaya, A.D.,
Churayan, A.L.

TITLE: The Earthquake ✓ of Krasnaya Polyana of December 21 - 27, 1955,
and Its Aftereffects

PERIODICAL: Byul. Soveta po seysmol. AS USSR, 1958, Nr 5, pp 3 - 34

ABSTRACT: In January - February 1956, the authors of the article in
question led the study of the aftereffects of two earthquakes
which took place in December 21 - 27, 1955. The expedition
inspected 18 populated localities, among them Krasnaya Polyana,
Adler, Sochi, Gagra, Khosta, Matsesta. The results of the in-
spection of damaged buildings and structures in the various
localities are cited and an evaluation of intensity of the
earth-quake is given. On the basis of the instrumental records
of the seismic stations and the facts obtained by macroseismic
observations, the epicenter zone of the earthquake of December
21 - 27, 1955, occurred in the region of Krasnaya Polyana. The

Card 1/2

SOV/169-59-5-4464

The Earthquake of Krasnaya Polyana of December 21 - 27, 1955, and Its After-effects

power of the earthquake in the epicenter is seven marks. With increasing distance from the epicenter, the power rapidly decreases that testifies the shallow location of the focus. The macroseismic region of the earthquake extends from Gagra to Lazarevskaya along the seacoast and to Kurdzhinovo in the Southern Caucasus. The macroseismic radius amounts to 65 - 75 km when assuming as epicenter Krasnaya Polyana. The influence of the characteristics of the ground and of the relief on the force of shock is studied and brief information is given on the geology and on the seismostatistics of the region. ✓

N.A. Vvedenskaya

Card 2/2

ZNACHKO-YAVORSKIY, I.L.; DZHABUA, Sh.A., red.; KAKABADZE, Dzh.,
red.izd-va; DZHAPARIDZE, N.A., tekhnred.

[E.G.Cheliev, inventor of the artificial Roman cement]
E.G.Cheliev - izobretatel' iskusstvennogo romantsementa.
Tbilisi, Izd-vo Akad.nauk Gruzinskoi SSR, 1959. 18 p.

(MIRA 13:7)

(Cheliev, Egor Gerasimovich, 1771-1839)

NASONOV, V.N.; BYKHOVSKIY, V.A.; DZHABUA, Sh.A.; DUZINKEVICH, S.Yu.;
KORCHINSKIY, I.L.; POLYAKOV, S.V. ; STEPANYAN, V.A.

Ways of lowering construction costs of industrial buildings to be
erected in seismic regions. Prom.stroi. 37 no.8:20-23 Ag '59.

(MIRA 12:11)

(Construction industry—Costs)

(Earthquakes and building)

DZHABUA, Sh.A.; CHURAYAN, A.L.; LORDKIPANIDZE, R.S., red.; SARKISYAN, L.N., red. izd-va; TODUA, A.R., tekhnred.

[Reasons for changes in some requirements in "Building norms and regulations for seismic regions."] Obosnovanie izmenenii nekotorykh trebovaniy "Norm i pravil stroitel'stva v seismicheskikh raionakh." Tbilisi, Izd-vo Akad.nauk Gruzinskoi SSR, 1960. 49 p. (MIRA 14:1)
(Earthquakes and building)

CHURAYAN, A.L.; DUZINKEVICH, S.Yu.; DZHABUA, Sh.A.

Methods for sealing joints of precast reinforced concrete
ceilings in seismic regions. Prom.stroi. 8 no.7:26-31
'60. (MIRA 13:7)

(Earthquakes and building) (Ceilings)

CHURAYAN, Artemiy Luk'yanovich, kand. tekhn. nauk; DZHABUA, Shalva Andreyevich; DUZINKEVICH, S.Yu., inzh., red.; BEGAK, G.A., red. izd-va; IGNAT'YEV, V.A., tekhn. red.

[Designs and units for large-panel buildings in earthquake districts]
Konstruktivnye skhemy i uzly krupnopanel'nykh zdaniy dlia seismicheskikh raionov. Pod red. S.IU.Duzinkevicha. Moskva, Gos. izd-vo lit-ry po stroit., arkhitekt. i stroit. materialam, 1961. 238 p.

(MIRA 14:7)

(Earthquakes and building)

CHURAYAN, A., kand.tekhn.nauk; DZHABUA, Sh., kand.tekhn.nauk

Earthquakeproof buildings with a nonrigid first story. Zhil.
stoi. no.1:14-15 '62. (MIRA 16:1)

(Earthquakes and building)

CHURAYAN, A., kand. tekhn. nauk; DZHABUA, Sh., kand. tekhn. nauk;
KOCHESHKOV, V., inzh.; MAL'TSEV, P., inzh.

Sealed joints of elements of earthquake-proof large-panel
buildings, Zhil. stroi. no.12:20-21 '62.
(MIRA 16:1)

(Earthquakes and building)
(Building—Details)

USSR/Farm Animals. - Small Horned Stock

Q-3

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26168

Author : Dzhedrenov S.N.

Inst : Not Given

Title : Comparative Results of Different Timing of Shearings of the
Kazakh Fine-wool Sheep (Sravnitel'nyye rezultaty razlichnykh
srokov okota kazakhskikh tonkorunnykh ovets)

Orig Pub : Tr. Alma-Atinsk. zoovet. in-ta, 1956, 9, No 42-47

Abstract : The author reports on the experiments conducted with a view
to determine the most effective timing of the lambing for
the fine-wool sheep in the south-east Kazakhstan. The experi-
mentation was carried out on the lambs of the Kazakh Fine-
wool breed (1,203 heads) born at different periods of winter
and spring). The average live weight atweaning (4-5 months)
of winter young rams was 2.9 kg. and that of young ewes 2.6 kg.
higher than that of spring ones. At 7-8 months of age, the
average live weight of lambs of the winter lambing was higher
in young rams by 12.2 kg. (35%), and in young ewes by 8.9 kg.

Card : 1/2

27

DZHADRANOV, S.N., assistant

Comparative results of various lambing times in Kazakh fine-wool
sheep. Trudy AZVI 9:42-47 '56. (MIRA 15:4)

1. Iz kafedry melkogo zhivotnovodstva (zav. kafedroy - chlen-
korrespondent AN KazSSR, zasluzhennyy deyatel' nauki, doktor
prof. V.A.Bal'mont) Alma-Atinskogo zooveterinarnogo instituta.
(Kazakhstan—Sheep)

DZHADYK, V.K.

SUBJECT USSR/MATHEMATICS/Theory of functions CARD 1/2 PG - 512
 AUTHOR DZJADYK V.K.
 TITLE On the constructive characteristic of the functions which on
 a finite section of the real axis satisfy the condition
 $\text{Lip } \alpha$ ($0 < \alpha < 1$).
 PERIODICAL Izvestija Akad.Nauk 20, 623-642 (1956)
 reviewed 1/1957

Incited by Nikol'ski, the author completes own and Timan's investigations
 (Doklady Akad.Nauk 75, 499-501; 78, 17-20; 77, 969-972) by some new results.
 On the interval $[-1, +1]$ two classes of functions are considered: 1. $\text{Lip } \alpha$
 - class of those functions for which $|f(x+h)-f(x)| \leq Ah^\alpha$, $h > 0$, $0 < \alpha < 1$,
 A - constant and 2. Z - class of those functions for which
 $|f(x+h)-2f(x)+f(x-h)| \leq Ah$.

The following principal theorems are proved:

1. In order that a function $f(x)$ being defined on $[-1, +1]$ possesses a r -th
 derivative $f^{(r)}(x)$ belonging to the class $\text{Lip } \alpha$ it is necessary and sufficient
 that for every integer n a polynomial $P_n(x)$ of at most n -th degree can be
 determined such that for all $x \in [-1, +1]$ the inequation

$$(1) \quad |f(x) - P_n(x)| \leq \frac{c}{n^{r+\alpha}} \left[(1-x^2)^{\frac{r+\alpha}{2}} + \frac{1}{n^{r+\alpha}} \right]$$

Izvestija Akad.Nauk 20, 623-642 (1956)

CARD 2/2

PG - 512

is satisfied. Here c is a constant not depending on x and n .
2. In order that under the same assumptions $f^{(r)}(x)$ belongs to Z , the satisfaction of (1) with $\alpha = 1$ is sufficient.

KUTATELADZE, K.S., doktor tekhn.nauk; TANDILOVA, K.B., kand.tekhn.nauk;
SOSNELIYA, L.D., inzh.; DZHADZHANASHVILI, O.S., inzh.; CHRDILELI,
O.G., inzh.

Increasing the activity of clinkers. TSement 30 no. 2:7-8
Mr-Apr '64. (MIRA 17:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stroitel'-
nykh materialov, Tbilisi, i Rustavskiy tsementnyy zavod.

PKHALADZE, G.M., prof.; MACHAVARIANI, S.N., dotsent; TSINTSADZE, A.N.;
MAGRADZE, K.G., dotsent; POCHKHUA, P.E.; CHOCHUA, D.V., kand.
med. nauk; KOTARIYA, V.G., kand. med. nauk; KADAGIDZE, K.I.,
kand. med. nauk; GURABANIDZE, T.A., kand. med. nauk; PKHAKADZE,
A.S., kand. med. nauk; AMIRIDZE, M.V., kand. med. nauk; KAVTARADZE,
V.A., kand. med. nauk; KUTALADZE, L.A., kand. med. nauk; TSAGARELI,
G.G., kand. med. nauk, [deceased]; KENCHADZE, I., kand. med. nauk;
ABASHIDZE, N.G., kand. med. nauk; KHMALADZE, T.I., kand. med. nauk;
DZHADZHANIDZE, D.V., kand. med. nauk

Effectiveness of the treatment of infectious syphilis (stage I
and II) with bicillin-1 and bicillin-3. Vest. derm. i ven.
no.1:56-61 '65. (MIRA 18:10)

1. Tbilisskiy nauchno-issledovatel'skiy kozhno-venerologicheskiy
institut (dir.- dotsent S.N. Machavariani) i kafedra kozhno-
venericheskikh bolezney (zav.- prof. G.M. Pkhaladze) Tbilisskogo
instituta usovershenstvovaniya vrachey.

DZHAFAR, S.

Tomorrow we shall show the same solidarity with the Algerian
people as we did yesterday. Vsem. prof. dvizh no.8/9:12-16
Ag-S '62. (MIRA 15:10)
(Trade unions) (Algeria—Politics and government)

TUTAYUK, V.Kh.; DZHAFARLI, B.M.

Anatomic structure of the leaves of various forms of the oriental oak (*Quercus macranthera* Fisch et Mey). Dokl. AN Azerb. SSR 18 no.7:53-57 '62. (MIRA 17:2)

TUTAYUK, V.Kh.; DZHAFARLI, F.M.

Anatomical structure of the leaves of various forms of oriental
oak (*Q. macranthera* F et M.). *Izv.AN Azerb.SSR. Ser.biol. i*
med.nauk no.4:9-17 '63. (MIRA 17:4)

32443

16,4100

S/044/61/000/010/006/051
C111/C222

AUTHOR: Dzhafarli, G.A.

TITLE: On the interpolation of entire periodic functions

PERIODICAL: Referativnyy zhurnal. Matematika, no. 10, 1961, 9 - 10,
abstract 10 B 38. ("Tr. Azerb. gos. ped. in-ta", 1960, 12,
123-131)

TEXT: Let $f(z)$ be an entire periodic function with the period 2π

$$f(z) = \sum_{m=-n}^n \frac{\prod_{\substack{k=-n \\ (m \neq k)}}^n \sin \frac{z-a_k}{2}}{\prod_{k=-n}^n \sin \frac{a_m-a_k}{2}} \cdot \frac{f(a_m)}{\sin \frac{z-a_m}{2}} + R_n(z)$$

where a_m ($m = 0, \pm 1, \pm 2, \dots$) are knots of interpolation ; let

Card 1/2

32443

On the interpolation of entire ...

S/044/61/000/010/006/051
C111/C222

$\operatorname{Im}(a_m) = \lg g_m$, where $\lim_{m \rightarrow \infty} g_m = \infty$, $\sum \frac{1}{g_m} < \infty$; if $M^+(\lg r)$ is

the maximum of the amount of $f(z)$ on the straight lines $y = \pm \lg r$ and

if
$$\lim_{n \rightarrow \infty} \left\{ \lg M^+ [\lg(2g_n + \epsilon)] - 2(g_n + \epsilon) \int_{g_0}^{g_n} \frac{n(t)dt}{(\epsilon + t)(2g_n + \epsilon - t)} \right\} = -\infty$$

X

holds for every $\epsilon > 0$, where $n(r)$ is the density function of the sequence of knots then $\lim_{n \rightarrow \infty} R_n(z) = 0$ holds uniformly for $|x| \leq \pi$,

$|y| \leq \lg r$; the theorem is proved according to the method due to M.V. Keldysh and I.I. Ibraginov. The author uses the theorem of I.I. Ibraginov on the convergence of the trigonometric interpolation process for the case of entire functions of finite order and the normal type with the period 2π .

[Abstracter's note: Complete translation.]

Card 2/2

DZHAFARLI, G.M.

Multiple orthogonal sets of functions complete with respect to
the operation of evolution. Izv.AN Azerb.SSR.Ser.fiz.-mat.i tekhn.
nauk no.6:11-23 '61. (MIRA 15:4)
(Functions, Orthogonal)

DZHAFARLI, G.M.

Convergence of Fourier series in a class of orthonormalized
multiplicative systems. Izv. AN Azerb.SSR. Ser. fiz.-mat.
i tekhn. nauk no.4:17-36 '62. (MIRA 16:2)
(Functions, Orthogonal)
(Fourier series)

VILENKIN, N.Ya.; AGAYEV, G.N.; DZHAFARLI, G.M.

Theory of multiplicative ~~orthonormalized~~ systems of functions.
Dokl. AN Azerb. SSR 18 no.9:3-7 '62. (MIRA 17:1)

1. Institut matematiki i mekhaniki AN AzerbSSR. Predstavleno
akademikom AN Azerbaydzhanskoy SSR Z.I. Khalilovym.

AGAYEV, G.N.; DZHAFARLI, G.M.

A class of multiplicative orthonormalized systems of functions.
Izv. AN Azerb. SSR. Ser. fiz.-mat. i tekhn. nauk no.2:27-36 '63.

DZHAFARLI, M. A., Candidate Phys-Math Sci (diss) -- "Marginal problems for quasilinear elliptic equations". Baku, 1959, published by the Acad Sci Azerb SSR. 12 pp (Acad Sci Azerb SSR, Inst of Phys and Math), 150 copies (KL, No 24, 1959, 125)

DZHAFARLI, M.A.

On a boundary problem for some quasi-biharmonic functions [in
Azerbaijani with summary in Russian]. Izv. AN Azerb. SSR, Ser. fiz-
tekhn. i khim. nauk no.1:27-23 '59. (MIRA 12:6)
(Harmonic functions)

DZHAFARLI, M.A.

Solution of the first boundary problem for quasilinear
elliptic equations [in Azerbaijani with summary in Russian].
Izv. AN Azerb. SSR. Ser. fiz. tekhn. i khim. nauk no.2:13-28
'59. (MIRA 12:8)

(Differential equations)

89557

S/044/60/000/008/029/035
C111/C222

16.4600

AUTHOR: Dzhafarly, M.A.

TITLE: Positivity and positive definiteness of the biharmonic operator Δ^2 in the complex Hilbert space

PERIODICAL: Referativnyy zhurnal. Matematika, no.8, 1960, 151, abstract no. 9170. Tr. In-ta fiz. i matem. AN Azerb SSR, 1959, 8, 134-145

TEXT: The author proves that the operator Δ^2 is positive and positive definite in the complex Hilbert space. The inequality of Friedrichs

$$\left(\int_{\Omega} \sum_{i=1}^n |\partial u / \partial x_i|^2 \right) \geq \gamma \int_{\Omega} |u|^2 d\Omega, \quad u|_S = 0,$$

S -- boundary of the region Ω) which was generalized by the author to the case of complex functions u is used for the proof.

[Abstracter's note: The above text is a full translation of the original Soviet abstract.]

Card 1/1

ZUL'FUGAROV, Z.G.; PARFENOVA, T.S.; DZHAFARLI, R.M.; RUSETSKAYA, Ye.A.;
POGOSOV, A.G.

Wine clarification with bentonite gilyabi clays from Shemakha
and Geokmaly deposits in Azerbaijan. Trudy Inst. khim. AN Azerb.
SSR 16:27-39 '57. (MIRA 12:9)
(Azerbaijan--Bentonite) (Wine and wine making)

RASULOVA, S.M.; KEALILOVA, N.G.; DZHAFARLI, R.M.; MURADOVA, S.A.; ZUL'FUGAROV, Z.G.

Investigation of means of increasing stable activity of the
cracking catalyst "khanlarit" [in Azerbaijani with summary in
Russian]. Izv. AN Azerb. SSR. Ser. fiz.-tekhn. i khim. nauk
no.5:81-95 '58. (MIRA 12:1)
(Cracking process) (Catalysts)

DZHAFARLY, Z. A.
BABAYEV, M.B.; DZHAFARLY, Z.A.

Present status of the Azerbaijan gas industry and prospects
for its development. Azerb.neft.khoz. 36 no.11:25-27 N '57.
(MIRA 11:2)
(Azerbaijan--Gas, Natural)

DZHAFAROV, A. A.

21858

DZHAFAROV, A. A. Vrediteli zernovykh kul'tur iz mira naselennykh
v rayonakh nakhichevanskoy ASSR. Doklady (Akad nauk azerbaydzh. SSR),
1949, No. 5, s. 215-220. - Rezюме na azerbaydzh. yaz. - Bibliogr:
6 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

BARGRAMYAN, M.G., TROFIMOV, G.K., NADZHAFOV, A.Yu., KASIMOV, A.A., DZHAFAROV, A.A.
KEVELIYEV, T.Kh.

Geographic malariological study in Azerbaijan as a basis for rational
antimalarial measures during a rapid decrease in the incidence of
malaria. Report No.1 [with summary in English]. Med.paraz. i paraz.
bol. 27 no.3:278-283 My-Je '58 (MIRA 11:7)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva
zdravookhraneniya AzerSSR (dir. instituta A.A. Kasimov).

(MALARIA, prevention and control

geographic survey as indic. for control in rapid decrease
(Rus))

. USSR / General and Special Zoology. Insects.

P

Abs Jour: Ref Zhur-Biol., No 4, 1958, 16400

Author : Dzhafarov A.A.

Inst : Not given.

Title : The Purple Scale Insect *Porphyrophora tritici* Bod. as a Pest of the Grain Cultures in Nakhichevan of the Azerbaydzhan Soviet Socialist Republic. (Purpurnyi chervets *Porphyrophoro tritici* Bod. kak vreditel' zernovykh.kul'tur v Nakhichevanskoi ASSR.)

Orig Pub: Izv. AN AzerbSSR, 1956, Noll, 83-90

Abstract: *Porphyrophora tritici* was found on crops of young winter wheat only in three villages of the Dzhulfin rayon. The larvae were developed from hibernating eggs when the soil temperature at a depth of 10-15 cm reached 10-12 degrees. They passed

Card 1/3

DZHAFAROV, A.A. (Baku); ZAVEL'SKIY, D.Ya. (Baku); SHTURMIN, V.G.; BADAL'YANTS.

Using gas in steam and diesel locomotives. Zhel. dor. transp. 40
no.2:45-51 F '58. (MIRA 11:3)

1. Nachal'nik Azerbaydzhanskoy zheleznoy dorogi (for Dzhafarov).
2. Nachal'nik otdela motorno-rel'sovogo transporta Azerbaydzhanskoy zheleznoy dorogi (for Zavel'skiy).
3. Nachal'nik tekhnicheskogo otdela Severo-Kavkazskoy dorogi (for Shturmin).
4. Nachal'nik tekhnicheskogo byuro Krasnodarskogo otdeleniya Severo-Kavkazskoy dorogi (for Badal'yants).

(Locomotives) (Gas as fuel)

ABDULLAYEV, Kh.I.; BAGRAMYAN, M.G.; DZHAFAROV, A.A.

Organization of control over laboratory malaria diagnosis in
Azerbaijan. Med.paraz. i paraz.bol. 28 no.3:327-328 My-Je
'59. (MIRA 12:9)

1. Iz Instituta malyarii meditsinskoy parazitologii Ministerstva
zdravookhraneniya Azerbaydzhanskoy SSR.
(MALARIA; diag.
standard. in Russia (Rus))

DZHAFAROV, A.A.

Cases of quartan malaria in the Kuba District of Azerbaijan in
1963. Med.paraz. i paraz.bol. 33 no.3:317-318 My-Je '64. (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut meditsinskoy parazitologii
i tropicheskoy meditsiny Ministerstva zdravookhraneniya
Azerbaydzhanskoy SSR imeni Kirova, Baku.

DZHAFAROV, A.A.

AYRUMOV, A.M.; DZHAFAROV, A.A.; KHARIK, V.F.; TITSKAYA, B.F., vedushchiy
redaktor; POLOSINA, A.S., tekhnicheskiiy redaktor

[Grab tools and devices used in the operation and general overhaul
of oil wells] Lovil'nye instrumenty i prisposobleniia, primeniayemye
pri ekspluatatsii i kapital'nom remonte neftianykh skvazhin.
Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi
lit-ry, 1954. 75 p. [Microfilm] (MLRA 7:10)
(Petroleum--Well repair)

DZHAFAROV, A.A.

~~Modernized disengaging casing spear. Azerb.neft.khoz. 35 no.10:22-~~

23 0 '56. (MLRA 10:1)

(Oil well drilling--Equipment and supplies)

DZHAFAROV, A.A.

Mineralogical characteristics of rocks in the Erivan salt-bearing region. Trudy Arm.geol.upr. no.1:103-108 '57.
(MIRA 12:1)
(Erivan region--Mineralogy, Determinative)

DZHAFAROV, A.A.

New design of deflectors used in drilling oil well second shafts.
Azerb. neft. khoz. 36 no.10:27-28 0 '57. (MIRA 11:2)
(Oil well drilling—Equipment and supplies)

OZHAFAROV, A.A.; DOKUMENTOV, V.I.

Cutting a window in the production casing when drilling the
second hole of a well. Neft. khoz. 4) no.7863-66 31'63
(MIRA 1000)

DZHAFAROV, A.A.

Some problems of the geology of oil fields in the southeastern part of the Apsheron Archipelago. Dokl. AN Azerb. SSR 21 no.7:23-27 '65. (MIRA 18:12)

1. Neftepromyslovoye upravleniye imeni XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuz. Submitted April 24, 1965.

DZHAFAROV, A. D.: Master Med Sci (diss) -- "The functional state of the kidneys and liver in brucellosis". Tashkent, 1959. 20 pp (Tashkent State Med Inst), 300 copies (KL, No 13, 1959, 111)

YZHAFAROV. A.D.; GANIYEV. U.G.; NEVSKIY. M.V.

State of the cardiovascular system in some infectious diseases.
"Sbor.nauch.trud." : TMI 22:83-86 '62.

(MIRA 18:10)

1. Kafedra infeksionnykh bolezney (zav. kafedroy - prof. T.Kh.
Nadzhmiddinov) Tashkentskogo gosudarstvennogo meditsinskogo
instituta.

DZHAFAROV, A.D.; DZHALILOV, K.D.

State of some liver functions in patients with brucellosis treated with antibiotics. Sbor.nauch.trud.TashGMI 22:164-169 '62.

(MIRA 18:10)

1. Kafedra infeksionnykh bolezney lechebnogo fakul'teta (zav. kafedroy - zasluzhennyy deyatel' nauki UzSSR, doktor med.nauk prof. T.Kh.Nadzhmiddinov) Tashkentskogo gosudarstvennogo meditsinskogo instituta.

NADZHIMIDDINGV, T.Kh., prof.; DZHAFAROV, A.D., kand. med. nauk, assistant;
TSIPKINA, S.V., ordinator

Outbreak of trichinosis in the Uzbek S. S. R. following eating
the meat of a wild boar. Sov. med. 28 no.9:136-138 S '65.

(MIRA 18:9)

1. Klinika infektsionnykh bolezney (dir. - prof. T.Kh.Nadzhimid-
dinov) Tashkentskogo meditsinskogo instituta.

DZHAFAROV, A.D., kand.med.nauk

Meritorious scientist of the Uzbek S.S.R., Professor Tursun
Khodzhaevich Nadzhmiddinov; on his 60th birthday. Med. zhur.
Uzb. no.1:94-95 Ja '62. (MIRA 15:3)
(NADZHMIDDINOV, TURSUN KHODZHAEVICH, 1911-1961)

DZHALILOV, K.D., kand. med. nauk; DZHAFAROV, A.D., kand. med. nauk;
NADZHMIDDINOV, T.Kh., prof., zasl. deyatel' nauki UzSSR, doktor
med. nauk, otv. red.; LYUBETSKAYA, R.Kh., red.; GOR'KOVAYA,
Z.P., tekhn. red.

[Problems of the diagnosis and treatment of brucellosis] Vop-
rosy diagnostiki i lecheniya brutselleza. Tashkent, Akad.
nauk Uzbekskoi SSR, 1963. 110 p. (MIRA 16:7)
(BRUCELOSIS)

DZHAFAROV, A. F.

DZHAFAROV, A. F.

"The Influence of Certain Injuries of Apples on Their Preservation."
Cand Tech Sci, Moscow Inst of National Economy imeni G. V. Plekhanov

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

USSR/General and Special Zoology. Insects. Insect P
and Mite Pests. Fruit and Berry Crop Pests.

Abs Jour : Ref Zhur-Biol., No 20, 1958, 99234

Author : Dzhaferov, A. F.

Inst : -

Title : The Effect of Damage Caused by the Codling
Moth on the Quality and Storage of Apples.

Orig Pub : Sad i ogorod, 1957, No 11, 34-37

Abstract : More than 500 kg of different varieties of
apples were shipped to Moscow from Azerbai-
dzhan. The shipment consisted of healthy ap-
ples and apples which did not have more than
two scarred blemishes resulting from damage
caused by the codling moth. The apples were
stored from 15 October to 31 March at 10°
and humidity of 90 percent. At the end of

Card : 1/3

USSR/General and Special Zoology. Insects. Insect and Mite Pests. Fruit and Berry Crop Pests.

Abs Jour : Ref Zhur-Biol., No 20, 1958, 92234

March, 30.3 percent of the apples had apple rot (among the healthy apples 1 and 4.2 percent). Eight percent were withered (among the healthy apples 1.4 percent). The incidence of physiological scald in the fruit damaged by the codling moth was one half that of the healthy apples. Apparently, a certain amount of volatile substances (acetaldehyde or alcohol, etc.) which produces burns on the skin, freely leaves the fruit through the scarred passages in the pulp of the fruit. During the 5 months of storage, the damaged fruit of different varieties lost on an average 9.2 percent in weight,

Card : 2/3

27

USSR/General and Special Zoology. Insects. Insect
and Mite Pests. Fruit and Berry Crop Pests.

Abs Jour : Ref Zhur-Biol., No 20, 1958, 92234

50 percent of acids, 32 percent of the
aggregate amount of sugar, 75 percent of
saccharose. The healthy apples lost respec-
tively 4.25, 10, and 34 percent. The quality
of the damaged fruit had already become in-
ferior after 2 months of storage. -- A. I.
Adrianov

Card : 3/3

ANTONOV, Mikhail Vasil'yevich; DZHAFAROV, Abdulla Fataliyevich;
VOLKOV, Yevgeniy Nikitich; SABUROV, N.V., prof., retsenzent;
SKROBANSKIY, G.G., prof., retsenzent; RUKOSUYEV, A.N., red.;
SINEL'NIKOVA, TS.B., red.; AYRIYEVA, N.S., red.; TERYUSHIN,
M.I., tekhn. red.

[Commercial guide to food products; vegetables and fruit]Tovaro-
vedenie prodovol'stvennykh tovarov; ovoshchi i plody. Pod red.
A.N.Rukosueva. Moskva, Gostorgizdat, 1962. 400 p.

(MIRA 16:1)

(Vegetables) (Fruit)

DZHAFAROV, Abiulla Fataliyevich; AYRIYEVA, N.S., red.

[Rare vegetables] Malorasprostrannyye ovoshchi. Moskva, Ekonomika, 1964. 75 p. (MIRA 18:1)

1 0953-05 FWT(l)/EEC(m)/EWA(h) Feb

[illegible]

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1. *Staphylococcus aureus*

495

0411020

12020

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32795

S/137/61/000/012/092/149

A006/A101

AUTHOR: Dzhafarov, A. M.

TITLE: Ghost formation in resistance butt welding

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 12, 1961, 5, abstract 12E28
("Azerb. neft. kh-vo", 1961, no. 3, 41 - 45)

TEXT: The author studied the properties and composition of the metal of ghosts formed during resistance-butt welding, and their effect on the strength of the weld metal. Grade 15, 20, 25, 30, 35, 40 and 45 steel specimens of 22 mm in diameter and 200 mm length were used. Resistance and flash welding was performed on an ACH -25 (ASN-25) machine. Results of metallographical, chemical and spectral analysis of the specimens, microhardness and tension tests, lead to the following conclusions; 1. Ghosts are the results of decarbonization, caused by the prevalent fusion of carbon-enriched areas owing to rising diffusion. 2. With a higher C content in the welded steels, the maximum width of the ghost increases first (up to 0.27% C) and then decreases; the duration of heating, to obtain its maximum width, decreases too. 3. The metal of the ghost consists mainly of ferrite, with different degrees of Si-alloying, as compared to the base metal.

Card 1/2

32795

S/137/61/000/012/092/149

A006/A101

Ghost formation in resistance butt welding

4. The strength of the ghost depends on the conditions of welding for the given steel grade; it increases with higher current density and longer duration of its passage. 5. The effect of the ghost on the weld metal strength depends on its width and the heating rate, at which it arises. At 1 mm width of the ghost, the strength of the joint does not decrease, if the heating rate during welding is > 250 degrees/sec. A further increase of the ghost width (> 1 mm) reduces the strength of the weld metal. 6. Best results in respect to strength are obtained at a heating rate of 250 - 300 degrees/sec. There are 22 references. X

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

DZHAFAROV, A.M.

Effect of a light-colored strip on the strength of metal seams in
resistance-butt welding. Izv. vys. ucheb. zav.; neft i gaz no.8:115-119
'58. (MIRA 11:10)

1. Azerbay dzhanskiy industrial'nyy institut im. M. Azizbekova.
(Pipelines--Welding)

KOSTIN, B.A., inzh.; DZHAFAROV, A.M., inzh.

Mechanizing the cleaning of oil field containers. Bezop. truda v
prom. 5 no. 5:20-21 My '61. (MIRA 14:5)
(Oil fields--Equipment and supplies)

DZHAFAROV, A.M.

Formation of a segregation line in resistance-butt welding. Azerb.
nefti. khoz. 40 no. 3:41-45 Mr '61. (MIRA 14:5)
(Electric welding--Defects)

DZHAFAROV, A.M.

Hydromechanical removal of sediment from sand traps. Trudy
VNIITB no.13:61-65 '60. (MIRA 14:12)
(Oil wells--Equipment and supplies)

DZHAFAROV, A.M.

Effect of the shape of conjugated surfaces on the structure
and properties of seam metal in case of a resistance butt
welding. Za tekhn. prog. 3 no.7:20-22 J1 '63. (MIRA 16:12)

DZHAFAROV, A.M.

Change in the structure and composition of seams in resistance-butt welding. Izv. vys. ucheb. zav.; neft' i gaz 6 no.2:105-109 '63.
(MIRA 16:5)

1. Azerbaydzhanskiy politekhnicheskiy institut.
(Electric welding)

DZHAFAROV, A.M.; AKHMEDOV, B.M.

Heat treating of low alloy pipe steels. Metalloved. i term.
obr. met. no.12:15-17 D '64 (MIRA 18:2)

1. Azerbaidzhanakir politehnicheskik institut i Azerbaydzhan-
skiy nauchno-issledovatel'skiy institut neftyanogo mashino-
stroyeniya.

DZHAFAROV, A.M.

Problem of the kinetics of the formation of a light streak in
resistance butt welding of alloyed steels. Sbor.nauch.-tekh.
inform.Azerb.inst.nauch.-tekh.inform.Ser.Mashinestroi. no.1:26-
37 '62. (MIRA 18:8)

1. Azerbaydzhanskiy politekhnicheskiy institut.

BZHAFANOV, A.S.

BZHAFANOV, A.S. -- "The Technology of Construction." Min Construction
Materials Industry Azerbaijanian SSR. Azerbaijanian Sci Res Inst of
Construction Materials and Structures named S.D. Dadashov, Baku,
1955
(Dissertation for the Degree of Candidate in Technical Sciences).

SO: Knizhnaya Letopisl', No 9, 1956

DZHAFAROV, Akif, Geroy Sotsialisticheskogo Truda

Outdistancing time. Sov.profsoiuzy 17 no.10:25 My '61.
(MIRA 14:5)

1. Master neftepromyslovogo upravleniya "Gyurgyanneft'."
(Neftyannye Kamni—Petroleum industry)
(Socialist competition)

DZHAFAROV, A.S.

Imbedding theorems in norms of L_p space. Izv. AN Azerb.
SSR. Ser. fiz.-mat. i tekhn. nauk no.1:81-88 '63.

(MIRA 16:7)

(Functions of real variables)
(Spaces, Generalized)

DEHAROV, A. I.

Dissertation: -- "The Best Approximations in the Mean of Functions of Several Variables by Means of Entire Functions of Finite Degree and Polynomials."
Cand Phys-Math Sci, Azerbaydzhan State Pedagogical Inst, Baku, 1954.
(Referativnyi Zhurnal--Mekhanika, Moscow, Jun 54)

SO: Sm 313, 23 Dec. 1954

OZHAFAROV A.S.

44-1-330

TRANSLATION FROM: Referativnyy Zhurnal, Matematika, 1957, Nr 1,
p. 51 (USSR)

AUTHOR: Dzhafarov, A. S.

TITLE: On the Best Mean Approximation of Functions of
Many Variables With the Aid of Entire Functions
of Finite Order (O nailuchshem priblizhenii v
srednem funktsiy mnogikh peremennykh pri
pomoshchi tselykh funktsiy konechnoy stepeni)

PERIODICAL: Tr.Azerb. gos. ped.in-ta, 1955, 2, pp. 110-116

ABSTRACT: The space $M^{(m)}L_p^{(n-m)}$ of functions which are de-
fined and measurable on R_n , with the finite norm
$$\|f\|_p^{(n,n-m)} = \sup_{x_1, \dots, x_m} \left(\int_{-\infty}^{\infty} \dots \int_{-\infty}^{\infty} |f(x_1, \dots, x_n)|^p dx_{m+1} \dots dx_n \right)^{1/p}$$

is investigated. With the aid of existing reasoning it is pos-
sible to evaluate the best approximation in the space
 $M^{(m)}L_p^{(n-m)}$ by means of entire functions of finite order through
the modulus of continuity. Basic result: If partial derivatives
of function $f(x, \dots, x_n)$ are

Card 1/2

$$\partial^{n_i} f / \partial x_i^{n_i} \in M^{(m)}L_p^{(n-m)} \quad (i=1, \dots, n)$$

44-1-330

On the Best Mean Approximation of Functions of Many Variables (Cont.)

where $\tau_i \geq 0$ and integers, then

$$A_{v_1, \dots, v_n}(f)_p^{(n, n-m)} \leq C \sum_{i=1}^n \frac{1}{v_i} \omega_{\tau_i}^{(n, n-m)} \left(\frac{1}{v_i}, \frac{\partial^{\tau_i} f}{\partial x_i^{\tau_i}} \right)$$

(C is independent of v_1, \dots, v_n) where

$$A_{v_1, \dots, v_n}(f)_p^{(n, n-m)} = \inf_{g_{v_1, \dots, v_n}} \|f - g_{v_1, \dots, v_n}\|_p^{(n, n-m)}, \quad \omega_{\tau_i}^{(n, n-m)}(\delta, f)_p = \sup_{|h| \leq \delta} \|\Delta_{h_i}^{\tau_i} f\|_p^{(n)}$$

This result is the generalization of corresponding results of S.N. Bernshteyn, N.I. Akhiezer, S.M. Nikol'skiy, S.B. Stechkin. Reviewer's note: Statement 3 (section 1) is incorrect, but it is not used further on.

O. V. Besov

Card 2/2

DZHAFAROV A.S.

44-1-323

Translation from: Referativnyy Zhurnal, Matematika, 1957, Nr 1, p. 50 (USSR)

AUTHOR: Dzhafarov, A. S.

TITLE: On the Best Mean Quadratic Approximation of Periodic Functions With Many Variables by Trigonometric Polynomials (O srednekvadraticheskom nailuchshem priblizhenii periodicheskikh funtskiy mnogikh peremennykh posredstvom trigonometricheskikh mnogochlenov)

PERIODICAL: Tr. Azerb. gos. ped. in-ta, 1955, 2, pp. 159-162

ABSTRACT: The class of functions $f(x_1, x_2, \dots, x_n)$ 2π - periodic for every argument, is investigated, these functions being multiple integrals of the order (r_1, \dots, r_n) of the function $\varphi(t_1, t_2, \dots, t_n) \in L_2$ in the sense of Weil. The author determines the exact upper bound of deviations in the metric L_2

Card 1/2

44-1-323

On the Best Mean Quadratic Approximation of Periodic Functions (Cont.)

from Fourier sums of the order (m_1, \dots, m_n) of the mentioned functions. If function φ changes so that $\|\varphi\| \leq K$, then the above-mentioned upper bound is equal to:

$$K \left[\sum_{s=1}^n (m_s + 1)^{-2} \right]^{1/2}$$

misprints.

. The article contains many

I. P. Natanson.

Card 2/2

DZHAFAROV, A.S.

Imbedding theory for one class of functions of several variables
[in Azerbaijani with summary in Russian]. Izv. AN Azerb. SSR. Ser.
fiz.-tekhn. i khim. nauk no.1:35-45 '59. (MIRA 12:6)
(Functions)

DZHAFAROV, A.S.

Imbedding theorems for a class of functions of several variables
[in Azerbaijani with summary in Russian]. Izv. AN Azerb. SSR.
Ser. fiz. tekhn. i khim. nauk no.2:3-11 '59. (MIRA 12:8)
(Functions of several variables)

DZHAFAROV, A.S.

Weighted and optimal uniform approximation of functions by
means of polynomials. Dokl.AN Azerb.SSR 15 no.6:459-462 '59.
(MIRA 12:9)

(Approximation computation)

16(1)

SOV/20-128-3-5/58

AUTHOR: Dzhafarov, A.S.

TITLE: Some Properties of n-Harmonic Functions

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 454-455 (USSR)

ABSTRACT: An n-harmonic function is a function $u(\varphi_1, \theta_1; \dots; \varphi_n, \theta_n)$ which is harmonic with reference to the pairs of variables φ_i, θ_i , $i=1, \dots, n$, for fixed remaining variables. Let $L_p^{(N)}(G)$ be the class of the measurable functions $f(x_1, \dots, x_N)$ which are integrable in G in p -th power. If f is 2π -periodic in all variables and $G = \{0 \leq x_s \leq 2\pi, s=1, \dots, N\}$, then the notation $L_p^{*(N)}$ will be used instead of $L_p^{(N)}(G)$. Let $\|f\|_{p,G}^{(N)}$ be the norm of f . Let $G' \subset G$ and $\Delta_{hx_s}^k \varphi$ be the k -th difference of the function φ in the variable x_s for the step h . Then let

Card 1/4

$$(1) \quad \omega_{kx_s}(\delta, \varphi)_{p,G} = \sup_{G', |h| \leq \delta} \|\Delta_{hx_s}^k \varphi\|_{p,G'}^{(N)}.$$

SOV/20-128-3-5/56

Some Properties of n-Harmonic Functions

If φ is 2π -periodic in x_s and $G = \{0 \leq x_s \leq 2\pi, s=1, \dots, N\}$, then let $\omega_{kx_s}(\delta, \varphi)_{p,N}$ be written. Let furthermore

$D = [0 \leq \varphi_i < 1; 0 \leq \theta_i < 2\pi, i=1, \dots, N]$ and let ω_i denote an arbitrary variable φ_i, θ_i .

Theorem: Let $f(t_1, \dots, t_n)$ and all $\frac{\partial^{r_i f}}{\partial t_i^{r_i}}, i=1, \dots, n$ belong to

$L_p^{*(n)}$. Let the n-harmonic function $u(\varphi_1, \theta_1, \dots, \varphi_n, \theta_n)$ in D satisfy the condition $u|_{\varphi_s=1, s=1, \dots, n} = f(\theta_1, \dots, \theta_n)$. Then

for natural q_1, \dots, q_n and $m \leq \delta^{-1}$ ($0 < \delta \leq \delta_0 < 1$), $\beta_s = r_s - 1$ it holds:

$$1) \quad \omega_{q_s \alpha_s}(\delta, u)_{p,D} \leq c m^{-q_s} \sum_{\gamma=1}^m \gamma^{q_s - \beta_s - \frac{1}{p}} \omega_{k_s t_s}^* \left(\frac{1}{\gamma}, f_{t_s}^{(r_s)} \right)_{p,n}$$

Card 2/4

Some Properties of n-Harmonic Functions

SOV/20-128-3-5/5E

2) If furthermore $\sum_{m=1}^{\infty} \lambda_s^{-\beta_s - \frac{1}{p}} \omega_{k_s t_s}^* \left(\frac{1}{m}, f_{t_s}^{(r_s)} \right)_{p,n}$
converges for natural λ_s , then it is

$$\omega_{q_s \alpha_s}(\delta, u_{\alpha_s}^{(\lambda_s)})_{p,D} \leq c \left\{ m^{-q_s} \sum_{\nu=1}^m \nu^{q_s + \lambda_s - \beta_s - \frac{1}{p}} \omega_{k_s t_s}^* \left(\frac{1}{\nu}, f_{t_s}^{(r_s)} \right)_{p,n} + \sum_{\nu=m+1}^{\infty} \nu^{\lambda_s - \beta_s - \frac{1}{p}} \omega_{k_s t_s}^* \left(\frac{1}{\nu}, f_{t_s}^{(r_s)} \right)_{p,n} \right\},$$

where c does not depend on m.

Theorem 2 treats the case, where it is still $\int_0^{2\pi} f(t_1, \dots, t_n) dt_1 = 0$

besides the assumptions of theorem 1.

S.M.Nikol'skiy, Ya.S.Bugrov, V.M.Babich and L.N.Slobodetskiy
are mentioned by the author.

Card 3/4

Some Properties of n-Harmonic Functions

SOV/20-128-3-5/58

There are 10 Soviet references.

ASSOCIATION: Institut fiziki i matematiki AN Azerb SSR (Institute of
Physics and Mathematics AS Azerbaydzhan SSR)

PRESENTED: May 27, 1959, by S.L.Sobolev, Academician

SUBMITTED: May 23, 1959

Card 4/4

DZHAFAROV, A.S.

On a Dirichlet problem for a half-space. Izv. AN Azerb. SSR. Ser.
fiz.-mat. i tekhn. nauk no.5:3-11 '59. (MIRA 13:3)
(Harmonic functions)

DZHAFAROV, A.S.

Some inequalities for entire functions of finite degree. Izv.vys.
ucheb.zav.; mat. no.1:103-115 '60. (MIRA 13:6)

1. Azerbaydzhanskiy gosudarstvennyy pedagogicheskiy institut imeni
V.I.Lenina.
(Inequalities) (Functions, Entire)

22414

S/044/61/000/001/001/013

C111/C222

16.4100

AUTHOR: Dzhaferov, A.S.

TITLE: On the order of the best approximation in the mean of functions of several variables by entire function of finite degree

PERIODICAL: Referativnyy zhurnal, Matematika, no. 1, 1961, 7, abstract 1B 23 ("Tr.Azerb.gos.ped.in-ta", 1959, 8, 97-107)

TEXT: The author proves some reversion theorems on the best approximation of functions of several variables by entire functions of finite degree. He gives necessary and sufficient conditions that the best approximation of a function of several variables by entire functions of finite degree tends to zero with a certain order. Let k be a natural number. It is said that $\varphi(\delta)$ ($\varphi(0) = 0$) is a comparison function of k -th order if it is defined on a certain interval $[0, b]$, if it does not decrease, if it tends to zero for $\delta \rightarrow 0$ and for sufficiently small δ it satisfies the inequality $\varphi(\delta) \geq c \delta^k$, where c does not depend on δ .

The function $f(x_1, \dots, x_n)$ belongs to the class $E_{k, \delta}^{(n, n-m)}[\varphi; M]_p$ if for the M which is independent of δ it holds

Card 1/3

22411

On the order of the best approximation... S/044/61/000/001/001/013
C111/C222

$$\omega_{kx_s}^{(n,n-m)}(\delta, f)_p \leq M \varphi(\delta), \quad 0 \leq \delta \leq b,$$

where $\varphi(\delta)$ -- comparison function of k -th order. According to the definition it holds

$$f(x_1, \dots, x_n) \in H_{k_1, \dots, k_n}^{(n,n-m)} [\varphi_1, \dots, \varphi_n; M_1, \dots, M_n]_p$$

if simultaneously it belongs to the classes

$$H_{k_1, x_1}^{(n,n-m)} [\varphi_1; M_1]_p, \dots, H_{k_n, x_n}^{(n,n-m)} [\varphi_n; M_n]_p.$$

Let furthermore $\alpha > 0$ and $k = [-\alpha]$. It is said that $\varphi(\delta)$ ($0 \leq \delta \leq b$) belongs to the class N^α if $\varphi(\delta)$ is a comparison function of k -th order, and if there exists a constant $C > 0$ so that for $0 < \delta < \eta \leq b$ it holds:

$\eta^{-\alpha} \varphi(\eta) \leq C \delta^{-\alpha} \varphi(\delta)$. The principal results of the paper are contained in two theorems: Theorem 3. Let k_1, \dots, k_n be natural numbers, $0 < \alpha_s < k_s$ and $\varphi_s \in N^{\alpha_s}$ ($s=1, 2, \dots, n$). If

Card 2/3

22411;

On the order of the best approximation...

S/044/61/000/001/001/013
C111/C222

$$A_{v_1, \dots, v_n} (f)_p^{(n, n-m)} \leq \sum_{s=1}^n M_s \varphi_s \left(\frac{1}{v_s+1} \right), \quad v_s \geq 1$$

then it holds

$$f \in H_{k_1, \dots, k_n}^{(n, n-m)} [\varphi_1, \dots, \varphi_n; C_1(M_1 + \|f\|_p^{(n, n-m)}), \dots, C_n(M_n + \|f\|_p^{(n, n-m)})]_p,$$

where C_1, \dots, C_n do not depend on f . Theorem 6: Let $\varphi_i \in N^{\alpha_i}$ ($i=1, \dots, n$).

In order that

$$A_{v_1, \dots, v_n} (f)_p^{(n, n-m)} \sim \sum_{i=1}^n \varphi_i \left(\frac{1}{v_i+1} \right)$$

it is necessary that for every natural $k_i > \alpha_i$ ($i=1, \dots, n$) and sufficient that for a certain $k_i > \alpha_i$ ($i=1, \dots, n$) the following condition is satisfied:

$$\omega_{k_i x_i}^{(n, n-m)}(\delta, f)_p \sim \varphi_i(\delta) \quad (i=1, \dots, n).$$

For the definition of $\|f\|_p^{(n, n-m)}$, $\omega_{kx_1}^{(n, n-m)}(\delta, f)_p$, $A_{v_1, \dots, v_n} (f)_p^{(n, n-m)}$ cf. R.Zh.Mat, 1957, 330.

[Abstracter's note: Complete translation.]
Card 3/3

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